

Over-the-counter laser pointers a threat to eyesight

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Laser pointers bought legally for less than \$AU30 are a threat to eyesight - with one pointer found to be 127 times over the Australian legal limit.

RMIT University researchers in Melbourne, Australia, found that green lasers were most dangerous, with all four models tested failing Australian standards.

Now they are calling on government to consider banning green lasers. In the meantime, they are recommending authorities to implement stringent testing and quality control.

Dr Kate Fox, a senior lecturer in RMIT's School of Engineering, said the [laser pointers](#) could be bought by anyone, including children, over the counter or online.

"All the [green laser pointers](#) we tested were from 51 to 127 times over the 1 milliwatt government safety limit.

"At that upper level, the beam would cause catastrophic retinal damage."

Fox, working with RMIT ophthalmologists, Adjunct Associate Professor Marc Sarossy and Alfred Hospital doctor Matthew Hao Lee, tested four models of green laser pointer and four models of red.

Sarossy said three of the four red models were within safety limits.

"There can still be some risk, but our normal response to visible light is

to blink and turn away - and that's usually enough to avoid any permanent damage.

"But green lasers produce much more infrared radiation, which does not trigger our natural blink and aversion responses.

"Green lasers also produce a much more focused spot than red lasers, with a higher risk of damaging the retina."

The research team found that imported laser pointers were poorly made, with manufacturers tempted to skip installing infrared-blocking filters to hold down costs.

Fox said their findings raised important public [safety](#) questions and called for organisations like the Australian Radiation Protection and Nuclear Safety Agency and the Royal Australian and New Zealand College of Ophthalmologists to join the debate.

The team's research will be presented at the IEEE Engineers in Medicine and Biology Society conference in Orlando, Florida, on August 18.

Provided by RMIT University

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